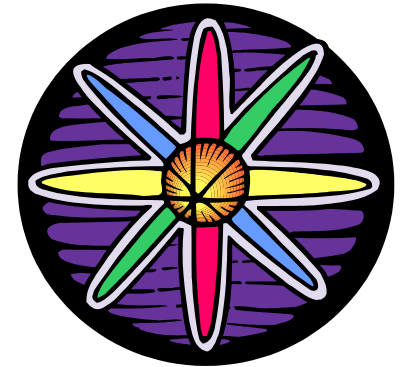# Making Surveys Effective
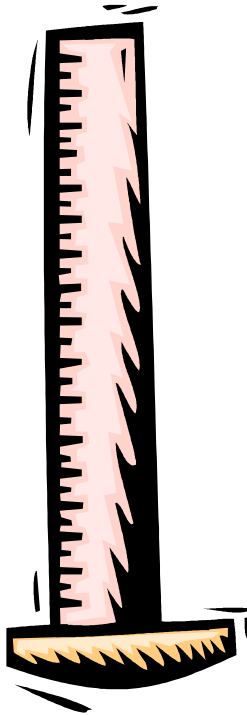
Michael C. Rodriguez
University of Minnesota

The Tailored Design Method

Dillman, D. A. (2000). *Mail and internet surveys* (2nd ed.). New York: Wiley & Sons, Inc.

Reducing Survey Error

- Sampling Error
- Coverage Error
- Measurement Error
- Nonresponse Error

Sampling Error

- The result of only including some of the population in the survey – literally because we only have a sample

➢ Example:

The City Council decided to survey residents in each neighborhood about their satisfaction with the work of their neighborhood council – they surveyed 20% of residents in each neighborhood.

Coverage Error

- The result of not giving every member of the population a chance to be included in the sample

➢Example:

The City Council decided to survey residents in each neighborhood using the telephone directory – some neighborhoods have many households without phones or with unlisted numbers.

Measurement Error

- The result of asking poorly worded questions so that responses are inaccurate or uninterpretable

➤ Example:

The City Council asked residents "*Has the social interaction level changed in the past year*" using these choices:

(1) increased a lot

(2) increased somewhat

(3) increased a little

(4) decreased

Nonresponse Error

- The result of people who do not respond to the survey being different from those who do respond – different in a way that is meaningful to the study

➢ Example:

80% of the residents that were 50 years old or older responded while only 20% of residents under 50 years old responded – one goal of the City Council was to increase neighborhood participation of younger residents

Two Critical Points
for quality survey design

- Responding to a survey requires cognition and motivation

- Multiple attempts are required to obtain satisfactory response rates regardless of administration method

How can we motivate?

View survey response as
social exchange

Social Exchange

- A theory of human behavior that helps us understand how human interaction develops and is maintained

- Individual behavior is motivated by the expected returns from others

- Three factors are central to predicting behavior in this context: rewards, costs, and trust

Ways of providing REWARDS

- Say thank you
  - "We appreciate very much your help"
  - "Many thanks in advance"

- Show positive regard
  - "You have been selected in our national sample"
  - "Please take a moment…"
  - Give a reason for the survey
  - Provide a toll-free number
  - Personally address correspondence

Ways of providing REWARDS

- Give tangible rewards
  - $1 or $2 improves response rates much more than promise of later larger rewards
  - Pens or other materials
  - Rewards invite a sense of obligation in the respondent

- Ask for advice
  - here you suggest that the respondent is the important one
  - Important decisions need to be made and we need your advice on which route to follow

Ways of providing REWARDS

- Give social validation
  - You are an important member of the neighborhood
- Inform respondents that opportunities to respond are scarce

- Make the survey interesting
  - Highly salient topics
  - Attend to layout & design
  - Some people just love surveys
- Support group values
  - Importance of neighborhood vitality
  - Importance of dues paying members

Ways of reducing SOCIAL COSTS

- Avoid embarrassment
  - Ask people questions to which they should reasonably be expected to know the answers?
  - Don't put folks in a position where they are being judged because of not knowing or doing things on the survey.

- Avoid subordinate language
  - "In order to address the pressing needs of the neighborhood councils, your input is necessary."
  - "Would you please consider providing us with your advice/ opinions/experiences?"

Ways of reducing SOCIAL COSTS

- Minimize requests for personal information
  - If needed, place at end of the survey
  - If required (the focus of the survey), use clear but "soft" language
  - Certify anonymity

- Avoid inconvenience
  - Include an envelope
  - Use a real stamp
- The survey should appear short and easy
  - Respondent friendly
  - Easy-to-answer format
  - Balance with more questions on a page

Ways of establishing TRUST

- Provide an advanced token of appreciation
  - Although $1 or $2 is of little value to many, it creates significant trust
  - Use of real stamp on return envelop

- Legitimate authority as a sponsor
  - Government sponsored surveys have higher response rates than surveys from marketing research firms

Ways of establishing TRUST

- Invoke other social exchange relationships
  - As an alum of the University …
  - As a resident of the neighborhood
  - As a recent visitor to the museum …

- Make the task appear important
  - Personalized cover letters
  - Actual letterhead
  - Questionnaire design that makes sense to ordinary folks

Linking Social Exchange Elements

- Costs and rewards may contribute to nonresponse
  - *What rewards are present for not responding?*
- Repetition of appeals diminishes effectiveness
- Extreme designs create the opposite effect
  - Very short surveys may be seen as **un**important
- People differ in what constitutes rewards/costs
- Strategies work as a whole – not in isolation

Survey
Design

Assess Every Survey Question

1. Do you need to ask the question?

2. Does the question require an answer?

3. Do survey respondents have an accurate ready-made answer?

4. Can folks accurately recall past behavior?

5. Will the individual be willing to reveal information?

6. Will the individual be motivated to answer each question?

Writing Acceptable Survey Questions

1. Use simple rather than specialized words.
2. Use few words to ask the question.
3. Use complete sentences for all questions.
4. Avoid vague quantifiers when you can be more precise.
5. Don't be so specific (overly detailed) that the individual couldn't possibly remember.
6. Balance positive/negative categories.

Writing Acceptable Survey Questions

7. Distinguish "undecided" from neutral
8. State both sides of attitude scales in the question.
9. Develop response categories that are mutually exclusive – nonoverlapping.
10. Use cognitive design characteristics to improve recall (sequencing).

Writing Acceptable Survey Questions

11. Be sure every question is technically accurate.

12. Be sure that the wording of the question will allow you to compare responses to previously collected data – where this is important – while correcting problems.

13. Avoid asking questions that require a YES in order to mean NO.

General Guidelines

- Professional Looking – clean format
- Brief and concise – clear instructions
- Use check boxes or circles, rather than blanks to obtain responses
- Personal questions at the end
- Leave room for comments (and tell folks upfront that there will be room).

Proofing Guidelines

- Read questions aloud
- Scan items for - *and* - *or* - *but* - *with* - *except*
- Consider sensitivity review
- Pilot items – look for
  - Little variation
  - too many "don't know"
  - Too many "other"
  - misinterpretation

Additional Item-Writing Advice

- Order scales from "low" to "high" from "negative" to "positive"

  strongly disagree / disagree / agree / strongly agree

  This common scale may be redundant

  Better to allow room for uncertainty

  disagree / tend to disagree …

More Item-Writing Advice

- Avoid middle or neutral options

    may indicate

    - Lack of knowledge   - Uncooperativeness

    - Reading difficulty   - Inapplicability

    - Reluctance to answer

- Provide a clearly interpretable alternative

    - not applicable   - no basis for judgment

    - don't know   - prefer not to answer

Even More Item-Writing Advice

- Avoid "other" options

- Avoid ranking responses

- Avoid loaded questions:

  - "9 out of 10 dentists recommend Pepsi over Coke. Which do you prefer?"

- Avoid double-barreled items:

  - How satisfied are you with the amount and quality of police patrol and road repair?

- Avoid open-ended questions.

Constructing the Survey
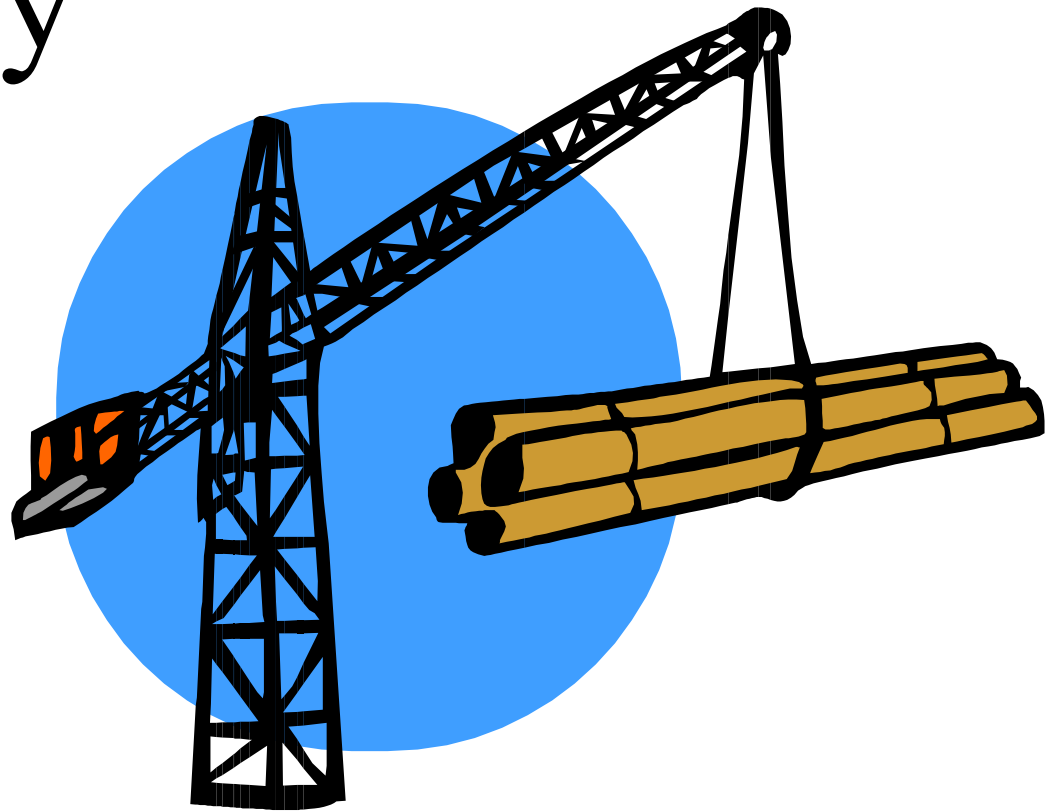
Criteria

- Objectives
  - Reduce nonresponse
  - Reduce measurement error
- Focus on Social Exchange Elements
  - Improve rewards
  - Reduce costs
  - Develop trust

Ordering Questions

1. Most salient to least salient
2. Does what the cover letter says
3. Personal or objectionable questions are near the end
4. Logical order or progression of questions
5. Group items with the same scale – with similar items within topic area

Choosing the First Question

1. Applies to everyone
2. Simple and easy to answer
3. Interesting
4. Connect the respondent and the purpose of the survey (as understood by the individual)

Pretesting

- Have knowledgeable colleagues or other experts review the instrument
- Conduct a few interviews to understand the cognitive and motivational requirements
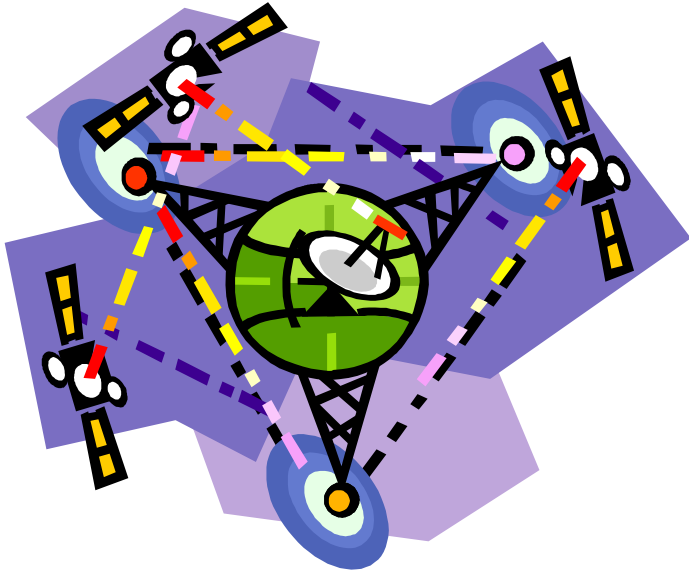- Pilot the instrument
- Final proofing

Computer
Based
Administration

Computer Based Issues

- Coverage
- Effects of computer hardware and software
- Computer literacy
- Computer logic versus survey logic

When to go Web-based

- You can use a convenience sample
- Your population is self-contained
- You have e-mail addresses
- Sample size is relatively large
- You want to use multimedia elements (opt)

Response Rates

Response Rates based on review of published survey results

- Previous research suggests average response rates at 55-65% for paper-pencil surveys.

- With careful attention to design, 70% can be achieved consistently.

- Others suggest that returns less than 40-50% are common on mail surveys

Web Return Rates

A meta-analysis of web survey reports (*N*=68)

- Mean response rate was 40% (*SD*=20%)
- Survey response rate was improved by
  - # of contacts
  - personalized contact
  - prenotification letter, message
  - issue salience
- No relationship found between survey length or password requirements and response rates

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